

# Chlorpyrifos maker confident despite revocation proposal

Environmental regulators propose revoking food residue tolerances for insecticide

By MATEUSZ PERKOWSKI  
Capital Press

The manufacturer of chlorpyrifos expects that further studies will allow for the insecticide's continued use despite a regulatory proposal to prohibit most of its applications.

Dow AgroSciences claims the U.S. Environmental Protection Agency's proposal to revoke all food residue "tolerances" for the insecticide won't stop growers from using it next year.

EPA won't stop usage of the chemical until it receives input from stakeholders, such

as farmers who rely on it, Dow said in a statement.

The company also said it "remains confident" the tolerances for chlorpyrifos ultimately won't be revoked after the EPA conducts a "more refined analysis of data," Dow said.

In 2007, Pesticide Action Network North America, an environmental group, petitioned the agency to prohibit the insecticide due to alleged dangers that it poses to farmworkers and their children.

PANNA filed a lawsuit against the EPA after it failed to

act on the petition — the agency said it needed more time to study the issue — and earlier this year, the 9th U.S. Circuit Court of Appeals ordered the government to make a decision.

EPA initially said it would propose revoking all tolerances next April, but the 9th Circuit said the delay was unacceptable and ordered the agency to decide by Oct. 31.

The agency has now proposed the revocation but said it won't become final until an assessment of the chemical's impacts on drinking

water is complete.

Environmental and farmworker groups said the EPA's decision is a "step forward on the path to environmental justice" but urged the agency to "move quickly to protect workers and children," according to a statement from Earthjustice, the law firm representing PANNA.

Growers of crops like cauliflower, cabbage, broccoli and citrus fruits would be most affected by a ban, but non-food crops wouldn't be subject to the tolerance revocation, EPA said.



Carol Ryan Dumas/Capital Press

April Hulet, assistant professor in the University of Idaho Department of Forest, Rangeland and Fire Sciences, discusses research on seed treatments to enhance germination, emergence and early seedling growth of sagebrush on rangelands during the Fall Rangeland Forum on Oct. 22 in Jerome, Idaho.

## Researchers target seed enhancement in rangeland restoration

By CAROL RYAN DUMAS  
Capital Press

JEROME, Idaho — Loss of rangeland to large wildfires is a growing problem in the arid West, where as much as half of the Great Basin's sagebrush steppe has already been destroyed.

Native sagebrush plant communities are not only important in providing forage and habitat for wildlife, they also minimize weed invasion. Sagebrush, however, is a slow-growing species and difficult to restore following wildfire in a growing environment of competing annual grasses.

"Sagebrush restoration has had very limited success and primarily depends on the amount of precipitation received during the growing season following seeding," said April Hulet, assistant professor in the University of Idaho Department of Forest, Rangeland and Fire Sciences.

In addition, large wildfires are destroying a lot of the seed source, Hulet told participants at the Fall Rangeland Forum, organized by the University of Idaho Rangeland Center and held on Oct. 22.

Hulet has been involved in multiple studies working on rangeland restoration, including pre-emptive strategies to increase a plant community's resilience to fire and resistance to annual grass invasion.

She is working on two studies that focus on sagebrush restoration. One is monitoring various sagebrush restoration methods post fire in southeastern Oregon, and the other is aimed at speeding up seed germination in native plants to better compete with cheatgrass.

Sagebrush establishment is challenged by competing species, precipitation, elevation, soil texture and seeding depth, she said.

But mitigating those constraints through seed enhance-

ment technologies aimed at germination, emergence and seedling survival holds promise, she said.

Masterminded by Matt Madsen, assistant professor at Brigham Young University, seed extrusion technology is one avenue to try to overcome multiple abiotic constraints.

The technology involves a "dough" of seeds and desired ingredients that is extruded through equipment similar to what is used in the food industry to make pasta or doughnuts.

It encapsulates seeds in pillows, or pellets, of materials — such as super-absorbent polymers, fungicides, fertilizers and soil surfactants — to enhance survival in rangeland environments.

"We're trying to overcome ecological barriers to make it (sagebrush) more competitive," Hulet said.

Precipitation limitation is the primary barrier, and the amount of precipitation is influenced by environmental characteristics, such as elevation and aspect, she said.

Absorbent material in the pillows or pellets makes water available to the seeds longer, increasing the likelihood of emergence and seedling survival, she said.

Seedling depth is another determining factor in sagebrush establishment and can be challenged by logistical constraints and indiscriminate placement of broadcast and drill seeding, she said.

Encapsulation of the seed in the dough provides a self-contained environment that can better ensure proper planting depth and good soil-seed contact, she said.

Most of the trials on seed enhancement technologies have occurred in growth chambers and grow rooms, but the research team plans to start in-field trials in small plots this spring, she said.

## Jury to settle billion-dollar battle between sweeteners

By BRIAN MELLEY  
Associated Press

LOS ANGELES (AP) — Big Sugar and Big Corn faced off in court this week in a bitter, multibillion-dollar battle of sweeteners that boils down to a mix of science, semantics and marketing.

Jurors in the case between sugar processors and corn manufacturers will take up one of nutrition's most vexing debates and confront a choice common among some consumers: sugar or high fructose corn syrup?

The trial that started Tuesday in federal court grew out of efforts by the Corn Refiners Association to rebrand its high fructose corn syrup as "corn sugar" to reverse damaging publicity that associated it with diabetes and obesity.

Its ad campaign featured a TV commercial with a father walking with his daughter across a cornfield and saying that he's reassured by experts that high fructose corn syrup is the same as cane sugar.

"Your body can't tell the difference," he says. "Sugar is sugar."

That didn't go over well with the Western Sugar Cooperative and other sugar processors, who sued the corn refiners and Archer Daniels Midland Co. and Cargill Inc. for false advertising. They are seeking as much as \$2 billion.

Corn refiners and the two agribusiness giants countersued, charging the sugar industry with making false and misleading statements that included a comment that high fructose corn syrup is as addictive as crack cocaine. They are seeking \$530 million.

Jurors will hear from experts on both sides of the debate, getting a mix of science and spin. They will also see



AP Photo/Matt Rourke, File

This photo shows a nutrition label that lists high fructose corn syrup as an ingredient in a can of soda. In a trial that started Nov. 3, jurors in the case between sugar processors and corn manufacturers will take up one of nutrition's most vexing debates and confront a choice common among some consumers: sugar or high fructose corn syrup?

damning internal documents that show what was happening behind closed doors.

Corn refiners will present evidence that the sugar industry was behind the pounding that high fructose corn syrup took in public opinion as sugar tried to regain market share it lost when food producers switched to the cheaper corn product that came on the market in the 1970s.

"We were just getting torpedoed in the press with all this junk science about high fructose corn syrup," said attorney Neil Murphy, who represents corn refiners. "They were feeding the media."

There were some high-profile defections as a result. Hunt's ketchup, Capri Sun juices and Thomas English muffins dumped high fructose corn syrup for sugar.

The sugar producers will attempt to show that the corn refiners' own advertising agency was uncomfortable creating something it felt was misleading.

"We've got the ad men saying that after they deal with their client, the corn refiners, they have to take a shower because they feel so dirty," said attorney Mark Lanier, who represents sugar. "It tells you that this was not an ad agency gone amok. This was a client pushing an ad agency amok."

One key document on the sugar side will be from a 1997 Mexican court case in which corn refiners said their product was distinct from sugar.

"Then 15 years later, 'Sugar is sugar,'" Lanier said. "You can't be more electrically charged opposites than those two positions taken by the one defendant in the case."

Corn refiners say that was taken out of context, and they argue there's no difference in the way the body metabolizes the two substances.

Science favors corn on that point, said Roger A. Clemens, a University of Southern California research professor of pharmacology and pharmaceutical science who has stud-

ied sugars.

The two products are nearly identical and are metabolized the same, he said. Sugar is sucrose, which is half fructose, half glucose. High-fructose corn syrup is 55 percent fructose and 45 percent glucose.

Clemens, who knows players on both sides, said the case won't solve the lingering disputes within science but will continue to stir controversy about the two products that have traded places in public popularity.

"In the 1970s, there was a big push to take sucrose out of the diet and sucrose was getting expensive," Clemens said. "Here we are 40 years later, and we've flipped all the way around. High fructose corn syrup now has a bad omen."

Corn refiners ultimately lost their bid to change the name to "corn sugar" when the Food and Drug Administration ruled in 2012 that sugar was a solid, dried and crystallized food, not syrup.

## About 2,000 lawsuits filed against biotech company over corn exports

By DAVID PITT  
Associated Press

DES MOINES, Iowa — About 2,000 farmers, grain handlers and corn exporters have filed lawsuits against Swiss biotechnology company Syngenta now that a federal judge has ruled their cases have merit to move forward.

The lawsuits allege Syn-

genta's introduction of a new genetically modified corn seed in 2011 interrupted trade with China and harmed the market for U.S. corn by depressing the commodity's price. That cost the U.S. corn industry an estimated \$1 billion to \$3 billion.

On Sept. 11, U.S. District Judge John Lungstrum denied Syngenta's motion to dismiss

the case, rejecting the company's argument that it had no duty to protect the farmers and other agribusinesses that handle and trade corn. A federal court panel decided in December to consolidate all of the Syngenta cases in Lungstrum's court in Kansas City, Kansas.

More than 1,860 cases have been transferred from 22

states, including 1,300 cases from Minnesota.

Since Lungstrum's decision in early September hundreds more lawsuits have been filed including more than 200 in South Dakota and more than 300 in Iowa.

The dispute centers around Syngenta's sale of Agrisure Viptera, a seed genetically altered to contain a protein that kills corn-eating bugs such as earworms and cutworms. The U.S. Department of Agricul-

ture approved it in 2010, and Syngenta first sold it to farmers in 2011.

China, a growing importer of U.S. corn that refuses to buy genetically modified crops it hasn't tested, had not approved Viptera when Syngenta began selling it. In November 2013, China discovered the Viptera corn trait in several U.S. shipments and began rejecting U.S. corn imports in February 2014. The lawsuits say the Chinese rejected more than

131 million bushels.

Syngenta attorney Michael Jones said it's not surprising Lungstrum allowed the case to proceed at this early stage. After each side conducts interviews and fact gathering to build their case, there will be another point at which Syngenta may file a summary judgment motion asking the judge to dismiss the case.

Lungstrum also will decide whether to certify the case as a class-action lawsuit allowing many of farmers and agribusinesses to be represented in a central trial.

"If the judge agrees and this goes forward as a class-action every corn farmer in the United States that lost money is covered by that class action. It is an enormous case," said Jayne Conroy, a New York attorney on the plaintiffs' executive committee coordinating the cases. "This is by far the largest agricultural case that has gone forward."

On Oct. 21 Lungstrum decided to first try a small number of representative bellwether cases "to determine the nature and strength of the claims..." Four farmers and two plaintiffs representing non-farmer agribusinesses will go to trial first in the test cases, the first of which is scheduled for trial in June 2017.

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